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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/777,032

02/11/2004

Sadeg M. Faris

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03/28/2006

REVEO, INC.
3 WESTCHESTER PLAZA
ELMSFORD, NY 10523

EXAMINER

PEACE, RHONDA S

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/777,032

Applicant(s)

FARIS, SADEG M.

Examiner

Rhonda S. Peace

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2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18, 19, and 29-34 are rejected under 35 U.S.C. 102(e) as being anticipated by DePue et al (US 6668107).

Pertaining to claims 18, 19, and 29-34, DePue et al discloses an optical planar light wave switching circuit with a substrate, capable of transmitting light signals parallel to the major surfaces of the substrate, that has an array of routing elements $S_{1,1}$, $S_{1,2}$, etc, and a plurality of cavities, or trenches 82 positioned between the routing elements, where these cavities are configured to receive a filler ("block") to change the refractive index of the cavity, thereby making each cavity 82 an optical modulation device for reducing insertion loss of the circuit (column 9 lines 65-67, column 10 lines 1-14 and 40-67, column 11 lines 1-26, Figure 6). The cavities 82 may be of identical configuration, or of dissimilar configuration, as any of the cavities may be left empty (without the index-changing filler previously mentioned), may be breaks in the waveguides filled by

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cladding material, or may be other various options proposed by the inventor (column 11 lines 1-26).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 20-28, and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over DePue et al (US 6668107) in further view of Ishikawa et al (US 6444976).

Regarding claims 20-28, and 35-37, DuPue et al discloses the device as previously described, including the use of cavities and blocks within an optical switching light wave circuit. However, DePue et al does not disclose the use of routing spheres as the routing element used within their light wave circuit. Ishikawa et al discloses the

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use of routing spheres within an optical array, where selective grating of any of the routing spheres will allow the user to predetermine the route in which they wish the optical signal to travel through (column 4 lines 26-50, column 5 lines 11-17, Figures 7, 8 and 11). Similarly, the routing spheres may be fixed so that light may travel one direction, or they also may route signals in a plurality of directions (column 2 lines 9-37, column 3 lines 35-45, Figure 3). It would have been obvious to one of ordinary skill in the art to combine the teachings of DePue et al and Ishikawa et al as the use of routing spheres allows for improvement in costs, size, and speed of previously known switching devices (column 1 lines 55-67, column 2 lines 1-6).

Response to Arguments

Applicant's amendment to claims 18 and 19 to replace the phrase "adjacent spheres" with the phrase "routing elements" is satisfactory in overcoming the rejection of claims 18 and 19 under 35 U.S.C. 112 put forth in the Office Action dated 10/13/2005.

Applicant's arguments filed 3/13/2006 have been fully considered but they are not persuasive. Applicant's assert neither DePue nor Ishikaa disclose an "optical equivalent of a breadboard" as recited in claims 18-20. The Examiner respectfully disagrees. A breadboard, as known by those in the electrical arts, is a device used to create electrical pathways by inserting electrical devices (resistors, transistors, etc) into holes of a board (the "breadboard"), where certain holes of the board are connected via electrical conductor pathways. Therefore, a wide range of electrical circuits can be formed on the same breadboard, where each circuit can direct electrical current through the board on a different path, and have varying outputs in terms of power. The device

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of DePue does disclose an optical breadboard, meaning that in the same way a breadboard serves as a general template through which a signal can be generated and the breadboard can be further modified by insertion of elements so as to produce a wide range of electrical circuits, the device of DuPue acts as a general template for an optical signal to pass through and its applications and manners in which it directs light through the template can be further modified by the insertion of elements.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda S. Peace whose telephone number is (571) 272-8580. The examiner can normally be reached on M-F (8-5).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272- 2344. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rhonda S. Peace
Examiner
Art Unit 2874


John D. Lee
Primary Examiner